

Coronary Heart Disease Deaths Among San Bernardino County Residents: A Statistical Fact Sheet

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For purposes of this fact sheet, *coronary heart disease* is defined as a combination of ischemic heart disease and hypertensive heart disease. These include ICD-10 Codes I20-I25, and I11.

About Coronary Heart Disease

According to the Centers for Disease Control and Prevention, coronary heart disease (CHD) remains the leading cause of death in the United States despite improved clinical care, heightened public awareness, and widespread use of health innovations. However, prevention remains the key strategy for reducing CHD mortality¹.

The age-adjusted death rate for CHD among U.S. residents aged ≥ 35 years was higher among men than women (222.4 versus 135.8 per 100,000). CHD death rates were highest among White men (440.0) and second highest among Black men (421.6). Compared with White men, American Indian/Alaska Native men and Asian/Pacific Islander men had much lower death rates for CHD (246.7 and 258.3, respectively). Black women had the highest death rates for CHD (301.9), followed by White (263.8), American Indian/Alaska Native (160.2), and Asian/Pacific Islander (148.1) women. Compared with Black and White men and women, Hispanics had lower death rates for CHD (285.4 and 189.8 for men and women, respectively)¹.

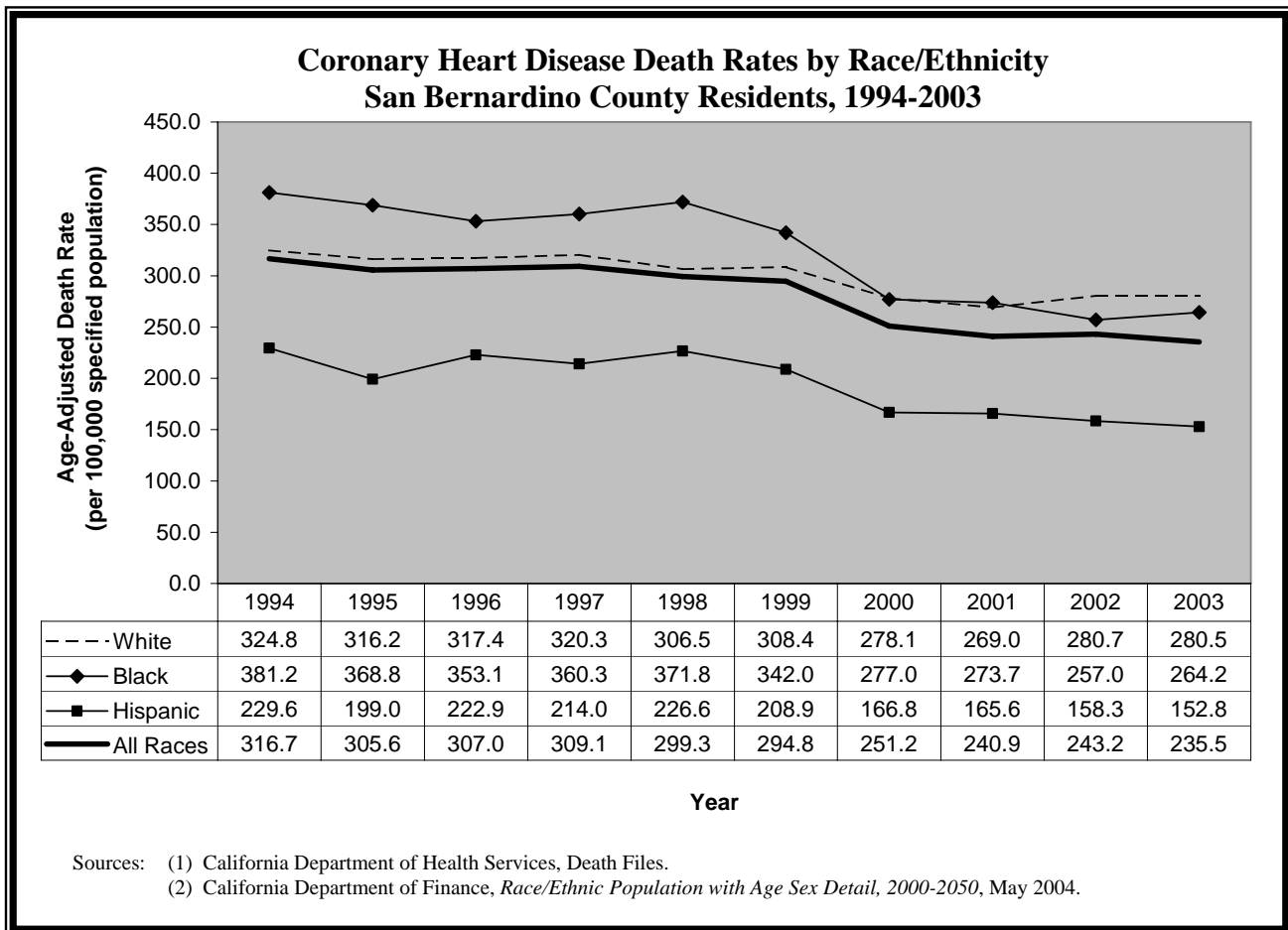
The American Heart Association has identified several risk factors that increase the risk of coronary heart disease². These risk factors include:

- increasing age
 - male gender
 - heredity
 - tobacco smoke
 - high blood cholesterol
 - high blood pressure
 - physical inactivity
 - being obese or overweight
 - having Diabetes Mellitus
 - the amount of stress in a person's life
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Death Rates by Race/Ethnicity

There was a noticeable decline in death rates due to coronary heart disease for all residents in San Bernardino County from 1999 to 2000. During this time period, White residents experienced a 9.8% decrease in the death rates, Black residents had a 19.0% decrease, and Hispanic residents experienced a 20.2% decrease. Although there were slight increases, White, Black, and Hispanic residents continued to have decreased death rates after 1999.

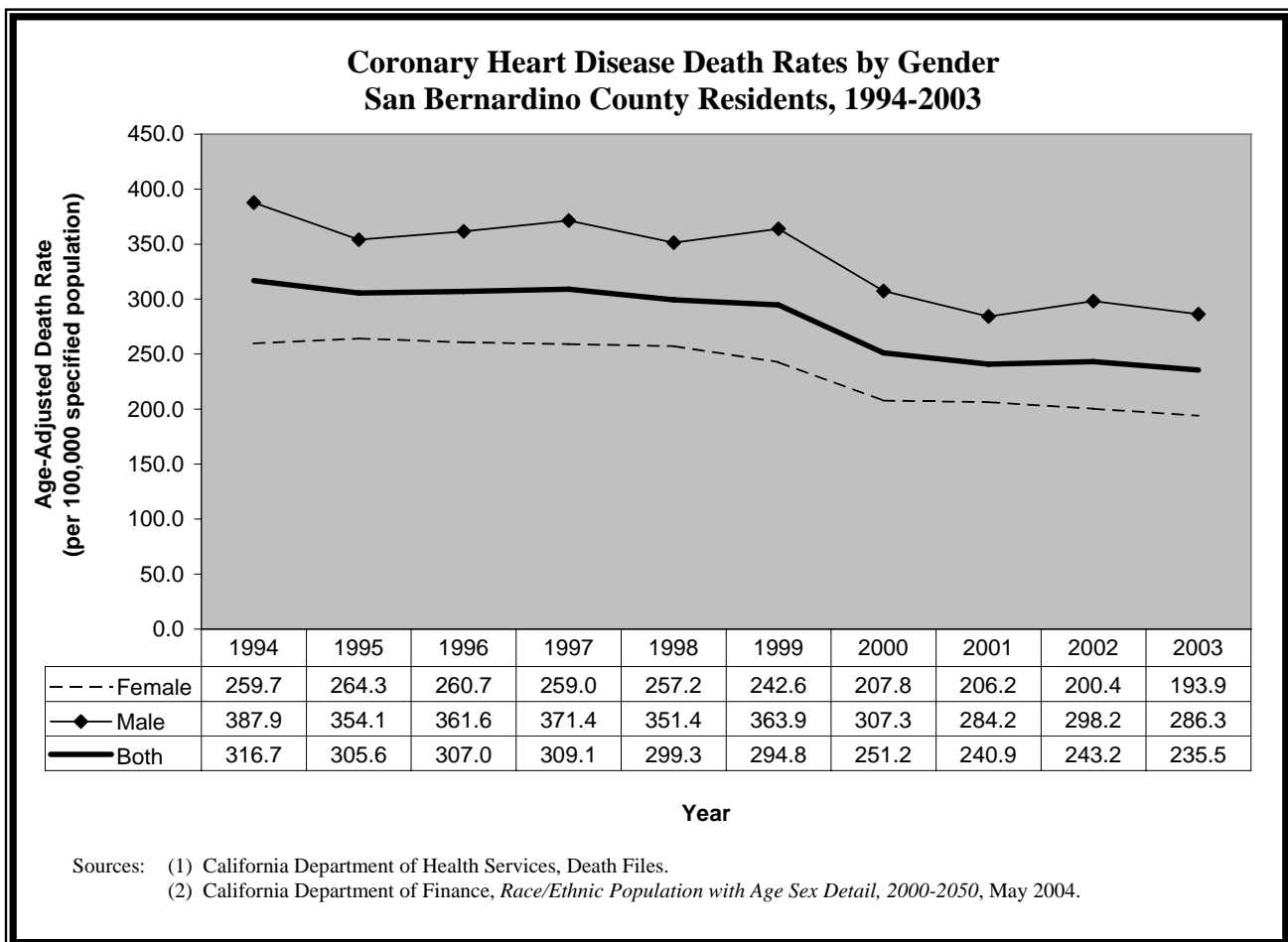
The decrease in death rates was evident not only during the years 1999-2000, but throughout the entire 10-year period. Overall, there was a 25.6% decrease in the death rate due to coronary heart disease among all residents in San Bernardino County from 1994 to 2003. Hispanic residents experienced the greatest decline in coronary heart disease death rates during the 10-year period (33.4%), followed by Black residents (30.7%) and White residents (13.6%).



Death Rates by Gender

From the years 1994 through 2003, male residents in San Bernardino County consistently had higher death rates due to coronary heart disease than female residents. However, males experienced a 26.2% decrease in death rates during this 10-year period, while female residents had a 25.3% decrease.

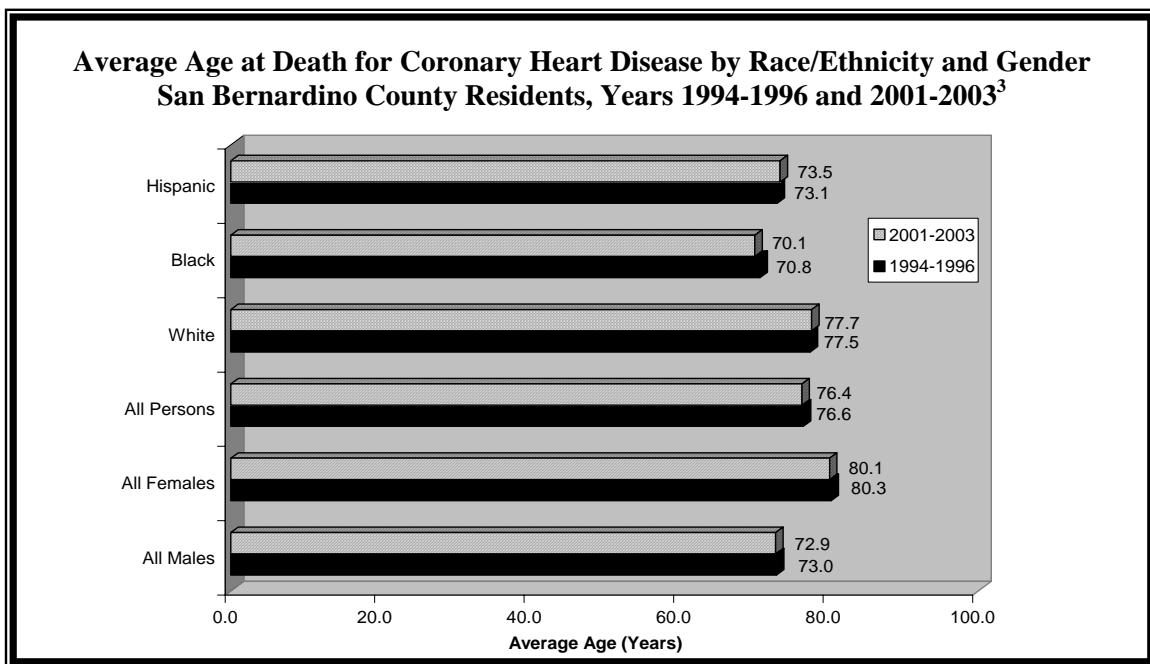
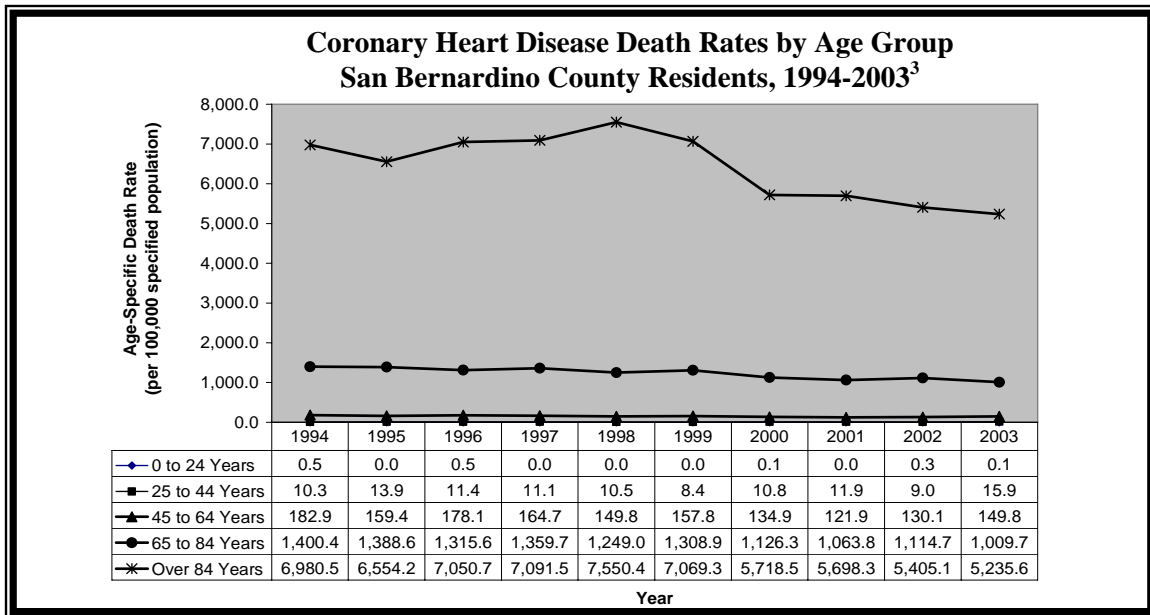
The coronary heart disease death rates for female residents were fairly steady until the year 2000 when there was a 14.3% decrease from the previous year. In the year 2000, male residents also experienced a 15.6% decrease in the death rate as compared to the previous year. These statistics show that both male and female residents of San Bernardino County died from coronary heart disease at much slower rates, particularly since 1999.



Death Rates by Age Group and Average Age at Death

Residents over the age of 84 years experienced substantially higher death rates due to coronary heart disease than other age groups in San Bernardino County from 1994 to 2003. Interestingly, all age groups had decreased death rates over the 10-year period, except residents between the ages of 25 and 44 years (54.4% increase).

On the average, Black residents died eight years younger than White residents and three years younger than Hispanic residents during the three-year period 2001-2003. Also, males died seven years younger than females during the same time period.



³Data Sources:

- (1) California Department of Health Services, Death Files.
- (2) California Department of Finance, *Race/Ethnic Population with Age Sex Detail, 2000-2050*, May 2004.

Geographic Distribution

From 1994 through 2003, the highest number of deaths due to coronary heart disease was among San Bernardino County residents who lived in ZIP code 92392 (Victorville). Of the 29,270 deaths due to CHD over the ten-year period, 5.7% of them were among residents who lived in this ZIP code.

Although 5.7% of all the CHD deaths during this ten-year time period were among residents in ZIP code 92392 (Victorville), residents in this same ZIP code represented 5.1% of deaths due to all causes during this time period. This difference was also evident in ZIP code 91786 (Upland), where these residents accounted for 4.0% of all CHD deaths and 3.3% of deaths from all causes.

These geographic statistics regarding CHD deaths are applicable to the specified ZIP code level, not necessarily the city level. This is due to the fact that many cities encompass more than one ZIP code. Therefore, conclusions regarding a particular ZIP code may not be the same conclusions about the entire city. For example, just because residents living in ZIP code 92392 accounted for the highest percentage of CHD deaths does not mean that Victorville, as a whole, accounted for the highest percentage of CHD deaths.

ZIP Codes With Most Coronary Heart Disease Deaths as Compared to All Deaths San Bernardino County Residents, 1994-2003

ZIP Code	City Location	Number of CHD Deaths	Percent of CHD Deaths	Percent of All Deaths
92392	Victorville	1,660	5.7	5.1
92345	Hesperia	1,408	4.8	4.7
92399	Yucaipa	1,333	4.6	4.5
92404	San Bernardino	1,327	4.5	4.7
91786	Upland	1,164	4.0	3.3
92335	Fontana	1,147	3.9	4.3
92376	Rialto	1,067	3.6	4.0
92284	Yucca Valley	1,040	3.6	3.1
92373	Redlands	965	3.3	3.2
92311	Barstow	964	3.3	2.6
91710	Chino	850	2.9	2.9
91762	Ontario	821	2.8	2.7
92307	Helendale	782	2.7	2.5
91764	Ontario	733	2.5	2.2
92346	Highland	730	2.5	2.7
All	San Bernardino County	29,270		

Source: California Department of Health Services, Death Files.

Summary of Coronary Heart Disease Deaths

There were a total of 29,270 deaths among San Bernardino County residents due to coronary heart disease from 1994 to 2003. Even though the number of deaths for males and females were fairly similar, males consistently had higher death rates than females over the ten-year period (see Technical Notes on page 7 for explanation of *age-adjusted death rate*).

White residents had higher numbers of deaths than other racial/ethnic groups, followed by Hispanic and Black residents. However, Blacks had higher death rates for majority of the ten-year period. Also, residents between the ages of 65 and 84 years had a higher number of deaths than other age groups, even though the death rates of residents age 85 years and older were highest.

Number of Deaths Due to Coronary Heart Disease By Gender, Race/Ethnicity, and Age Group San Bernardino County Residents, 1994-2003

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total	2,959	2,884	2,936	2,983	2,894	3,000	2,867	2,822	2,940	2,985
Gender										
Female	1,441	1,482	1,484	1,493	1,502	1,490	1,413	1,437	1,429	1,437
Male	1,518	1,402	1,452	1,490	1,392	1,510	1,454	1,385	1,511	1,548
Race/Ethnicity										
White	2,460	2,395	2,402	2,423	2,293	2,395	2,275	2,171	2,233	2,219
Black	155	163	168	187	190	194	187	202	209	247
Asian/Pacific Islander	43	48	40	52	47	57	66	65	81	83
American Indian	8	4	9	6	8	5	12	12	11	14
Other/Unknown	3	2	0	1	0	0	0	1	1	2
Hispanic	290	272	317	314	356	349	327	371	405	420
Age Group										
0 to 24 Years	3	0	3	0	0	0	1	0	2	1
25 to 44 Years	50	67	55	54	51	41	56	63	49	89
45 to 64 Years	434	389	450	432	409	451	436	412	459	553
65 to 84 Years	1,600	1,589	1,515	1,580	1,468	1,540	1,486	1,433	1,536	1,433
Over 84 Years	872	839	913	917	966	968	887	914	894	909

Source: California Department of Health Services, Death Files.

Technical Notes

Age-adjusted death rate: The age-adjusted death rates presented in this fact sheet were calculated using the direct method and do not include decedents of unknown age. The rate is computed by grouping the populations into subsets by age, calculating an age-specific death rate for each group, then deriving a composite death rate by weighting each age category in proportion to its occurrence in a standard population, in this case the 2000 U.S. standard million population. Age-adjusted death rates permit the comparison of populations with disparate age structures as if the populations had similar age distributions. This means that when comparing age-adjusted rates between two or more populations, remaining differences in the rates must be explained by factors other than age. For more information about age-adjusted rates, please see the Centers for Disease Control and Prevention's definition of age-adjustment at: <http://www.cdc.gov/nchs/datawh/nchsdefs/ageadjustment.htm>.

Age-specific death rate: The age-specific death rates presented in this fact sheet were obtained by dividing the number of deaths in the specified age group by the estimated population in that specified age group and multiplying by 100,000.

$$\text{Age-specific death rate} = \frac{\text{number of deaths in an age group}}{\text{population size in same age group}} \times 100,000$$

Race/ethnicity: The following six mutually exclusive race/ethnicity groups were used to report the mortality data presented in this fact sheet: (1) White, Non-Hispanic; (2) Black, Non-Hispanic; (3) Asian/Pacific Islander, Non-Hispanic; (4) American Indian, Non-Hispanic; (5) Other/Unknown, Non-Hispanic; and (6) Hispanic. The Hispanic ethnic group includes any race. The racial/ethnic category of *Multiple Race* was not included in the analyses for this fact sheet.

Cited References

1. Centers for Disease Control and Prevention, *Mortality From Coronary Heart Disease and Acute Myocardial Infarction --- United States, 1998*, MMWR Weekly, 50(06);90-3, February 2001, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5006a2.htm> (accessed September 2005).
2. American Heart Association, *Risk Factors and Coronary Heart Disease*, 2005, <http://www.americanheart.org/presenter.jhtml?identifier=500> (accessed September 2005).

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